

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An array ~~Array~~ microphone comprising:
 - a plurality of ~~several~~ individual microphones located in their site of intended use, the microphones connected to a signal processor ~~that comprises~~ having at least one digital filter for each individual microphone configured for operating in, ~~in particular~~ for voice recognition;
 - at least one loudspeaker arranged in an acquisition range of each of the individual microphones;
 - an electronic circuit configured to apply a signal to the loudspeaker to emit a predetermined periodic noise signal;
 - the signal processor configured to evaluate the response signals ~~coming~~ received from each of the microphones ~~and/or from each of the digital filters~~ as a response to the reception of the periodic noise signal; ~~and wherein~~ the signal processor ~~is~~ configured to compare the response signals with model signals stored in memory ~~the signal processor or externally~~.
2. (Currently Amended) A method for checking array microphones, the method comprising:
 - ~~connecting several individual microphones with a signal processor;~~
 - ~~providing at least one loudspeaker in the acquisition range of each of the individual microphones;~~
 - ~~providing a signal processor connected to the at least one loudspeaker and to each microphone;~~
 - emitting a predetermined periodic noise signal via at least one ~~the~~ loudspeaker;
 - receiving the predetermined periodic noise signal at a plurality of individual microphones;
 - evaluating at least one response signal from each microphone ~~and/or from each of a digital filter for each of the microphones~~ the digital filters;

comparing the at least one response signal with at least one model signal stored in memory ~~the signal processor or externally~~, the at ~~least~~ least one model signal corresponding and which correspond to properly operating individual microphones or properly operating filters; and

providing a display in the form of a message ~~and/or~~ or storing the comparison results.

3. (Currently Amended) The method of according to Claim 2 further comprising:

before emitting the a predetermined periodic noise signal via the loudspeaker, verifying the loudspeaker by applying the loudspeaker signal directly to an the A/D A/D converter and operating the loudspeaker in parallel to an the input impedance of the A/D A/D converter, the loudspeaker forming a voltage divider with the output resistance of the output amplifier that operates the loudspeaker;

recording the signal applied to the A/D A/D converter; and

evaluating the signal by comparing this signal with a reference signal that originates from a the measurement with a reference impedance instead of the loudspeaker impedance.

4. (Currently Amended) ~~The A~~ method of according to Claim 3 further comprising:

verifying ~~the~~ a ratio of the loudspeaker impedance to the input impedance of the A/D A/D converter; and

~~if it deviates too far from the value of 1, adding an additional pre-resistance if the~~
ratio is substantially greater than or substantially less than 1, which is switched in front of
the loudspeaker.

5. (Currently Amended) A method for automatically calibrating array microphones having a plurality of several individual microphones connected to a signal processor and having at least one digital filter for each individual microphone, the method comprising:

increasing sound power concentration of the array microphone and suppressing lateral sound sources by processing ~~applying an appropriate algorithm to~~ the individual

microphone signals ~~using an algorithm having, the algorithm~~ components that include including filter coefficient sets used in the digital filters characteristic of the microphone arrangement, microphone type, microphone sensitivity, ~~and~~ characteristics of the microphones, characteristics of the acoustical environment, and the location of the sound sources;

~~providing at least one loudspeaker in the acquisition range of each individual microphone, the loudspeaker connected to a signal processor, which is connected to each microphone;~~

emitting a predetermined periodic noise signal ~~via the loudspeaker~~ via the a loudspeaker in the acquisition range of each individual microphone;

evaluating the response signals from each microphone ~~and/or from each digital filter~~;

comparing the response signals with model signals stored in memory, ~~the signal processor, or externally, and which correspond~~ the model signals corresponding to properly operating individual microphones or properly operating digital filters ~~via the loudspeaker~~;

changing the value of any of the individual filter coefficients ~~or of all the filter coefficients~~ of the filter coefficient set as a function of the deviation of the response signals from the model signals; and

repeating the test until the response signals are in the range of the model signals.

6. (Currently Amended) A method according to Claim 5 further comprising:

interrupting the test after a predetermined number of test repetitions have been carried out; and

displaying ~~and/or~~ or storing an error message.

7. (New) The array microphone of claim 1 further comprising:

a separate test device including the loudspeaker and the electronic circuit connected to the signal processor and either the microphones or digital filters located in there site of intended use.

8. (New) The array microphone of claim 1 further comprising:
 a separate test device including the signal processor connected to the loudspeaker
 and either the microphones or digital filters located in their site of intended use.
9. (New) The array microphone of claim 1 further comprising:
 a separate test device including the signal processor, the loudspeaker and the
 electronic circuit connected to either the microphones or digital filters located in their site
 of intended use.
10. (New) A test device for testing an array microphone having several individual
 microphones located in their site of intended use, the microphones connected to a signal
 processor that comprises at least one digital filter for each individual microphone, in
 particular for voice recognition, the test device comprising:
 at least one loudspeaker arranged in an acquisition range of each of the individual
 microphones;
 an electronic circuit configured to apply a signal to the loudspeaker to emit a
 predetermined periodic noise signal;
 where the signal processor is configured to evaluate the response signals coming
 from each of the microphones as a response to the reception of the periodic noise signal;
 and where the signal processor is configured to compare the response signals with model
 signals stored in the signal processor or externally.
11. (New) A test device for testing an array microphone having several individual
 microphones located in their site of intended use, the microphones connected to at least
 one digital filter for each individual microphone, in particular for voice recognition, the
 test device comprising:
 a signal processor;
 at least one loudspeaker arranged in an acquisition range of each of the individual
 microphones;

an electronic circuit configured to apply a signal to the loudspeaker to emit a predetermined periodic noise signal;

where the signal processor is configured to evaluate the response signals coming from each of the microphones as a response to the reception of the periodic noise signal; and where the signal processor is configured to compare the response signals with model signals stored in the signal processor or externally.